## CLAIMS

1. A process for producing a compound represented by formula (1):

$$\begin{array}{c} O \\ CO_2H \\ \end{array}$$

$$\begin{array}{c} O \\ CO_2H \\ \end{array}$$

$$\begin{array}{c} O \\ \end{array}$$

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wherein  $R^1$  represents a lower alkyl group and A represents an amino-protecting group which comprises treating a compound represented by formula (6):

$$\begin{array}{c|c}
O & CO_2R^2 \\
\hline
NH & NH \\
\hline
OR^1 & F
\end{array}$$
(6)

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wherein  $\mathbb{R}^1$  and  $\mathbb{A}$  are as defined above and  $\mathbb{R}^2$  represents a lower alkyl group with a base in a water-containing solvent.

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2. The process according to claim 1, wherein the compound represented by formula (6) is prepared by reacting a compound represented by formula (5):

$$\begin{array}{c}
O \\
CO_2R^2 \\
F
\end{array}$$
(5)

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wherein  $R^1$ ,  $R^2$  and A are as defined above, with an ortho ester and then with (1R,2S)-2-fluorocyclopropylamine or a salt thereof.

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3. The process according to claim 2, wherein the compound represented by formula (5) is prepared by converting a compound represented by formula (4):

wherein R<sup>1</sup> and A are as defined above to an acid halide with a halogenating agent or to an acylimidazole with a carbonyldimidazole condensing agent, and then reacting the resultant product with a magnesium salt of a lower alkyl monoester of malonic acid, or, in the presence of a base, with a lower alkyl monoester of malonic acid.

4. The process according to claim 3, wherein the compound represented by formula (4) is prepared by hydrolyzing a compound represented by formula (3):

$$ANH \longrightarrow N \longrightarrow F$$

$$CO_2R$$

$$F$$

$$(3)$$

- wherein R represents a lower alkyl group and R<sup>1</sup> and A are as defined above.
- 5. The process according to claim 4, wherein the compound represented by formula (3) is prepared by reacting a compound represented by formula (2):

wherein R and R<sup>1</sup> are as defined above with a compound represented by the following formula:

wherein A is as defined above in a solvent which dissolves the compound of formula (2).

- 6. The process according to claim 4, wherein the solvent is a highly polar solvent.
- 7. The process according to claim 6, wherein the highly polar solvent is one selected from dimethylsulfoxide, N,N-dimethylformamide and ionic liquids.
- 8. The process according to claim 5, wherein the solvent is dimethylsulfoxide.
  - 9. A compound represented by formula (6):

wherein  $R^1$  and  $R^2$  represent each independently a lower alkyl group and A represents an amino-protecting group.

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10. A compound represented by formula (5):

$$\begin{array}{c}
O \\
CO_2R^2
\end{array}$$
ANH
$$OR^1$$
(5)

wherein  $R^1$  and  $R^2$  represent each independently a lower alkyl group and A represents an amino-protecting group.

11. A compound represented by formula (4):

$$ANH \longrightarrow N \longrightarrow CO_2H$$

$$CO_2H$$

$$F$$

$$(4)$$

wherein R<sup>1</sup> represents a lower alkyl group and A represents an amino-protecting group.

12. A compound represented by formula (3):

$$ANH \longrightarrow N \longrightarrow F$$

$$CO_2R$$

$$GR^1$$

wherein R and R<sup>1</sup> represent each independently a lower alkyl group and A represents an amino-protecting group.